The Technology Review

VOL. XVIII FEBRUARY, 1916 No. 2

GREAT CROWDS EXPECTED

Tech men coming to the Reunion from the four quarters of the globe—New York-Boston sea trip popular

Although no canvass has yet been made among Technology men for the purpose of ascertaining the number that will attend the Reunion, news from all parts of the country indicates that the turn-out will be even larger than was at first anticipated.

The character of the entertainment is such that it interests the women fully as much as the men, and it is estimated that the sexes will be pretty nearly equally divided in the various audiences. The events connected with the Charles River Basin and the new buildings on the afternoon of the first day of the Reunion will attract immense crowds, not only of Tech men and women, but the Boston general public; for the basin itself will be a thing of life and interest. For purposes of transporting guests across the river a large number of boats will be required, and all these will be gayly decorated. In addition to this there will be a number of interesting speed events, showing the very latest development in speed boats and the various types, more especially for use in time of war. A number of diversions in connection with the basin are in contemplation and, taking it all in all, this sheet of water will be the scene of busy activity during the entire afternoon. In the Institute buildings the President and Faculty will assist in receiving our guests, and student guides will be posted in the various departments to impart information to visitors.

In the group of buildings enclosing the southwest lateral court will be an exhibit showing the development of Technology during its fifty years of existence. This exhibit will be worth a great deal of study and will attract much attention.

At four o'clock there will be a tea and later in the afternoon a dress parade of the Institute battalion in the great court of the new buildings.

The intention of this first afternoon is to bring Institute men and their friends together socially and informally. The attendance at this function will probably be greater than at any other single entertainment, with the possible exception of the pageant on Tuesday evening.

The conception of this pageant in the mind of its creator calls for the most wonderful effects of lighting, staging and acting that perhaps have ever been placed before the public in any such fashion. The setting of the great court, the exceptional opportunities for producing unusual lighting effects, the river and the sky-line of Boston, all combined with the tremendous throng that will fill the stands in the open theater, will join to make possible a production original in character and unprecedented in brilliancy. The mass action of the pageant will be carried out by a group of a thousand undergraduates who will be thoroughly drilled in their parts during the week preceding the pageant. For the most part the star performers will also be Technology men; in fact we shall have to go very little outside our ranks during the entire Reunion. It is hoped that the accommodations for spectators will be ample

enough so that alumni can invite as many friends as they may desire, and indeed it may be possible to accommodate a small portion of the Boston public.

The stunts at Nantasket will be far superior to anything we have ever tried before, although in past reunions this feature has been extremely successful. This year the various presentations of the classes are being taken up early and studied carefully, and in most cases will be rehearsed, at least by the principals, before they are put on at Nantasket. This insures an entertainment of a very unusual character, carefully planned and carried out with all the promptness and accuracy of a well regulated playhouse. Three steamers have been engaged to take the throng to Nantasket, and it is believed that ample accommodations can be made there for as large a crowd as can be accommodated on the boats.

In regard to the special steamboat from New York to Boston on the Metropolitan line, it is to be said that this is the all-the-way-by-water route, through the North River, the East River, the entire length of Long Island Sound, through Block Island Sound, Vineyard Sound, Nantucket Sound, and then out on the Atlantic Ocean around the Cape and on to Boston. The *Massachusetts* and *Bunker Hill* of this line are sister ships and the fastest steamers of their class ever constructed. All their staterooms are equipped and furnished with the most modern sanitary fixtures, inside staterooms being provided with electric fans. They have attractive outside dining rooms on the main deck, have a hurricane deck café, are equipped for the burning of oil as fuel and have automatic sprinkling appliances, wireless telegraphy, and all modern facilities to insure security and comfort. The trip from New York to Boston will contribute in no small way to the pleasure of the Boston visitation. The officers of the line have arranged to have a special dinner and breakfast served, and Lester D. Gardner, '98, of New York, who is in direct charge of this boat trip, is arranging for some good entertainments *en route*. The boat will leave at five o'clock, thus giving passengers a good view of the sound before darkness sets in. It probably will not arrive in Boston until nine o'clock in the morning so that the latter part of the trip along the coast to Boston can be enjoyed.

We want to emphasize two important points. Already about 15 per cent. of the accommodations on the boat have been taken. If you desire to come by this route you should make your reservations early. These should be sent to Lester D. Gardner, 17 Gramercy Park, New York City. We would also say that there are several conventions in Boston at the time of our Reunion, two very large ones, one of which is the National Grocers' Association. There will undoubtedly be plenty of accommodations somewhere for all persons coming to the Reunion, but if you want good rooms centrally located in the best hotels, you will have to write definitely now in order to secure them. The chairman of the committee in charge of this matter is Prof. Charles F. Park, Massachusetts Institute of Technology, Boston, who will be glad to secure rooms for you if you will write him specifying what you want.

Thus far there have been three cups offered in connection with the Reunion, —the class cup for the largest class, the long distance cup for the man who comes the greatest distance to attend the Reunion, and the cup for the winner of the song competition. Please remember that the song competition closes on the 15th of March, and we hope that every loyal Tech man will at least attempt to compose something for this competition.

The official publication of the Reunion Committee, *The Pantechnicon*, gives all the details in regard to the Reunion, and we commend this to your attention. The second number of *The Pantechnicon* will be issued about the middle of March, and another one a few weeks before the Reunion. These will contain full information in regard to the trip and we suggest that you file them for reference.

FIFTY YEARS OF TECHNOLOGY

An idea of the impressive showing that can be made with the help of suggestions and co-operation from former students

The half century which has elapsed since the Rogers Building was opened has been a period of almost inconceivable expansion in American enterprise. It has witnessed, moreover, what amounts to a revolution in the methods and aims of education. These two great changes have been due in large measure to the development of applied science; and in that development the Institute and the men whom it has educated have taken a leading part. To give some conception of this material and intellectual revolution and of the relation of the Institute to it, there will be held, in connection with the Reunion in June, an exhibit which will be, it is believed, unique.

The exhibit will occupy a good deal of space in the new buildings and, after having been viewed by Tech men, will be opened to the public. The visitor will find therein many interesting, varied and picturesque illustrations of the phenomenal growth of the Institute—from 15 students in 1865 to 1,900 in 1915, from nothing but debts in 1866 to millions of property in 1916, from the Rogers Building on two thirds of a city block in the earlier year, to the great present and prospective plant on fifty acres in the later year. He will see, for example, a symbolic frieze showing this growth, and that of many modern devices and facilities; he will see an 1865 group of students filling half of one room, contrasted with a 1915 group filling half of Copley Square. He will note that whereas those earliest students came mainly from around Boston, the Institute men of today come from every corner of the world. He will have a graphic demonstration that, whereas the first mechanical engineering laboratory consisted of one little engine tucked away under the stairs, the present laboratory and its accessories cover acres of space crowded with costly machinery. He will see a number of other pictorial devices showing the far-reaching growth of that laboratory teaching in which the Institute was a pioneer.

As he goes on, the visitor will find a lot of interesting data, showing what Tech men are doing, how much they are earning, and the numberless ways in which they are contributing to private and public enterprises, through civic, social and governmental service. And he will note how this fundamental idea of service originates among the undergraduates, by getting a bird's eye view of the student activities—of the working of the Institute Committee, the *Tech*, the point system, athletics, the fraternities and other organizations; and he will be interested to note how these activities are carried right over into the alumni organizations, where the same spirit of service to Technology, and, through Technology, to the public welfare, is conspicuous.

Having received this general impression of the growth of the Institute and of the spirit and principles which inspired it, the visitor will next find specific instances of progress in a series of exhibits showing, for example, the development of the telephone since the '70's, the multifarious uses of electricity since the '80's, the progress of transportation, gas engines, aeroplanes, submarines, sanitary science, etc., as well as of specific enterprises like the Federal irrigation dams, the New York water supply, the Stone and Webster enterprises, various subways, highways and bridges, the Woolworth Building, etc.

Next, to make clear that Tech men are not limited to material development, there will be a roomful of paintings, statues, architectural designs, music, etc., showing their fertility in the fine arts; and in this room will be as complete an exhibit as possible of books written by

Institute men. This exhibit and its accompanying card catalog will be made, later, a permanent feature of the general library of the Institute.

A place of special interest to Tech men themselves will be the historical room, with portraits of former presidents and professors, of the chief donors (not including Mr. Smith), and of the Boston of the '60's and '70's as contrasted with the city of today. In this room will be found also many photographs and memorabilia of local or class interest, as well as copies of student publications from the *Spectrum* of the '70's to the latest copy of *Technique*.

Should it prove practicable, at least one room will be devoted to a demonstration of "Technology and Preparedness," in which the enormous part to be played by applied science in general, and by Institute men in particular, in any real scheme of preparedness—a scheme in which the mobilizing of troops and the manufacture of munitions form but a minor part—will be shown. As a part of, or as auxiliary to, this part of the exhibit, will appear the paid or unpaid service which Institute men have rendered and are rendering to town, city, state and federal government in all sorts of ways, and the service, too, which they have given and are giving in the various fields of education.

The exhibit will culminate in a great picture of what the Cambridge site will be when all the buildings in contemplation, and all the embellishments dreamed of, are completed; and here will be indicated, in symbolical fashion, some of the great problems in pure and applied science, in government, and in civilization as a whole, which lie immediately before the world and which can be solved only by men of the temper and training of those who are today proud and will in the future be proud to call the Institute their Alma Mater.

Following is a bare outline of the kind of thing that is proposed:

STATISTICS

GROWTH

(1) Area: 1866–1916, colored plans showing successive accretions.
(2) Students: Graphs showing various phases of increase. Photographs, side by side, of the undergraduates of 1865 and of 1915.
(3) Aulmni: Pictorial charts showing total increases, and by courses.
(4) Teaching Staff: Various graphs. Photograph of Faculty of 1865 and of 1916.

DISTRIBUTION

Where Tech men come from, and where they go to after graduation shown in various ways on maps and globes.
Group photographs of foreign students.
Photographs of preparatory schools in various corners of the world.

DEVELOPMENT OF TECHNOLOGICAL EDUCATION

(1) Tables or graphs showing, in 1865 and 1915,
  (a) Number of institutions.
  (b) Number of students.
  (c) Number of graduates.
  (d) Number of teachers.
  (e) Comparative budgets.
(2) Cartoons of earlier methods of teaching.
(3) Photographs of typical modern laboratories.
(4) A symbolic frieze depicting the growth of the Institute and of the chief modern applications of science.

GROWTH OF LABORATORIES

(1) The old mechanical engineering laboratory under the basement stairs in Rogers, contrasted with the existing laboratory and that in the new buildings.
(2) Same idea for chemical, electrical, etc.
(3) Laboratories that have originated at the Institute, with results upon the development of modern civilization indicated.
(4) Graph showing increase in variety and cost of equipment.
(5) Graph indicating returns to the industrial and commercial world.
(6) Photographs of striking equipment devised by the Institute.
(7) Graphs showing growth in space.
(8) Summer instruction:
  (a) Summer trips, with pictures.
  (b) Summer camp, with pictures.

SUPPORT

(1) Total contributions from the state, graphically shown.
(2) Total contributions from individuals, graphically shown.
(3) Total returns from tuition fees, graphically shown.

RETURNS

(1) To the community:
  (a) Estimates of growth of wealth due to applied science, in United States.
  (b) Estimates of growth of wealth due to applied science, in Massachusetts.
(2) To the graduates:
  (a) Tables showing principal occupations of Tech men (ten years and more after graduation) with numbers therein.
  (b) Earnings of Tech men shown graphically and pictorially.

THE TEACHING

(1) Proportion of instructors to students shown graphically.
(2) Academic origin of teaching staff.
(3) Tenure of office, Carnegie pensions, etc., depicted by graphs.

THE STUDENTS

(1) Cost per student, analyzed.
(2) Age statistics.
(3) Students from other colleges. Graph showing large and increasing number from other higher institutions.
(4) Earnings of students:
  (a) While studying.
  (b) In vacation.
(5) Students aid. Graphical showing of the various forms of scholarships, etc.
(6) Student activities:
  (a) Chart of the student organization.
  (b) Chart explaining the "point system."
  (c) Photographs of the teams, clubs, etc.
  (d) Exhibit of student publications, *The Tech*, *Technique*, etc.
  (e) The student and his country. Pictures of the battalion, etc.
  (f) The fraternities and other organizations; charts, pictures of houses, etc.
(7). The day's work. Chart indicating the number of student hours, etc.
  (a) Lectures and recitations.
  (b) Laboratory work.
  (c) Preparation.
(8) The dormitories:
  (a) Pictures of the dormitory buildings.
  (b) Layout for future dormitories.
  (c) Proposed dormitory administration.

THE ALUMNI

(1) Chart showing organization.
(2) The Alumni Association.
  (a) The parent association, personnel and activities.
  (b) The branch associations.
  (c) The Association of Class Secretaries.
  (d) The Alumni Council.
  (e) The Technology Clubs Associated.
(3) Some of the things the Association has done.
  (a) Representation on the Corporation.
  (b) The Walker Memorial.
  (c) The Alumni Funds.
  (d) The TECHNOLOGY REVIEW.
  (e) Reports to the Corporation.
(4) Alumni Clubs.
  (a) The Technology Club.
  (b) The Technology Club of New York.
  (c) The dining and luncheon clubs.
(5) The Reunions.
  (a) 1904.
  (b) 1909.
  (c) 1916.

TECHNOLOGY AND SCIENCE

THE SOCIETY OF ARTS

(1) Chart showing the original scheme of the Institute with School of Applied Science, Society of Arts and Museum of Arts.
(2) Partial list of important matters brought forward by Society.

THE FACULTY

(1) Researches and publications in connection with the Institute.
(2) Examples of important contributions of individuals to pure and applied science.

THE ALUMNI

(1) Notable contributions to
  (a) Research.
  (b) Engineering, etc.
  (c) Industry and manufacturing.
  (d) Education.
  (e) Public welfare.
  (f) Organization.
  (These to be illustrated with charts, photographs, etc.)
(2) Notable inventions and discoveries, with models, photographs, etc.
(3) "Live" exhibits of the development of such notable things as the telephone, electric light and power, the gas engine, the aeroplane, the submarine, the steel industry, etc., with indications of the part taken by the Institute and by Tech men.

TECHNOLOGY AND THE FINE ARTS

LITERATURE

(1) Book cases filled with the writings of Corporation, Faculty and Alumni. These to be specially marked and made a permanent part of the general library of the Institute.
(2) Card catalog of those volumes and of other Institute writings which, for one reason and another, cannot be secured.

FINE ARTS

(1) Painting.
  (a) Originals by leading painters connected with the Institute.
  (b) Photographs of notable pictures by same.
(2) Sculpture.
  (a) Ditto.
  (b) Ditto.
(3) Music.
  (a) Copies of notable productions.
  (b) Manuscripts of notable productions.
(4) Architecture.
  (a) Plans and elevations of leading designs actually built.
  (b) Models of leading designs actually built.
  (c) Notable "dreams," such as that of Despradelle.
  (d) Notable examples of landscape architecture.
(5) Craftsmanship.
  (a) Examples of bookbinding, jewelry, etc.

TECHNOLOGY AND THE PUBLIC SERVICE

PIONEERS

(1) Conspicuous and picturesque instances of Tech men who have built up new industries.
(2) Tech men in remote corners of the world.

PUBLIC SERVANTS

(1) Those in service of Federal Government, with notable examples of their work.
(2) Ditto in state service.
(3) Ditto in city and town service.
(4) Those doing unpaid service on boards, commissions, etc.

BUILDERS OF MASSACHUSETTS

(1) Estimate, with illustrative examples, of what Tech men have done for the Commonwealth.
(2) Notable investigations carried on at the Institute or by Tech men for the benefit of Massachusetts.

TECHNOLOGY AND PREPAREDNESS

If it should prove possible to accomplish, it would be of great interest to show the dependence of the modern state upon applied science; the true meaning of "preparedness" beyond the training of an army, the building of war vessels, and the making of munitions; and the part which Institute men would be called upon to take in the event of invasion. This may be more than can be undertaken with the limited funds and time available.

HISTORICAL ROOM

THE BOSTON OF 1866

(1) Photographs, etc., of Boston, and especially of the Back Bay in the period between 1860 and 1880.
(2) Examples of the way men were carried about, did business, etc., fifty years ago.

THE YOUNG TECHNOLOGY

(1) Photographs, etc., of the first building, the early lecture rooms, etc.
(2) Portraits of early presidents, professors, donors, etc.
(3) Memorabilia of the early days of the Institute.
(4) Photographs, etc., of things and events associated with the undergraduate history of the successive classes.

THE FUTURE

THE NEW SITE

(1) Bird's eye view and model of the Technology buildings as they will eventually appear.
(2) The proposed water-gate and other embellishments.
(3) Suggested developments of the Charles River Basin.
(4) A new Harvard Bridge and the new boulevard to the North Shore.
(5) Proposed developments of Cambridge and Harvard University.
(6) A vision of some of the big things that science is trying to solve and to do. A few of the tasks that the "New Tech" is tacitly pledged to undertake.

Meeting of Puget Sound Alumni

On Friday, January 7, the Technology Club of Puget Sound had an unusually interesting dinner meeting at the Arctic Club in Seattle. The guests of the evening were Dr. Henry Suzzallo, president of the University of Washington, and Mr. Daniel Kelleher, president of the local Harvard club. M. P. Anderson, '10, officiated at the dinner, which was informal in character.

Mr. Kelleher spoke on the subject of the relationships between Harvard and Tech men in the past and in the future.

Dr. Suzzallo's address consisted of an analysis of the relationship of engineering training in the universities to the state at large. He stated that the engineering profession is being slowly overcrowded just as the professions of law, medicine and theology have been overcrowded and that the functions of a state university are to provide means so that men who do not care to complete a four years' training in engineering could be given a training along vocational lines in two years. He also stated that engineers have done more to raise the standards in American colleges than any other group of men.

The men present at the meeting were: W. Scott Matheson, '99, H. W. Turrell, Jr., '15, Frank D. Hayden, '03, Leroy M. Backus, '01, Gerald Frink, '00, Leonard T. Bushnell, '05, Clancey M. Lewis, '99, Henry M. Griffith, '14, G. E. Channing, '75, Harmon E. Keyes, '15, Harrison S. Taft, '96, Charles H. Alden, '90, Frank Dabney, '75, Maurice P. Anderson, '10, Joseph Daniels, '05.

The college men of Seattle have been invited to a "College Night" at the University of Washington on March 20, as a part of the ceremonies in connection with the inauguration of Dr. Suzzallo as president of the university. We expect to have a large turnout of the men as these affairs in the past have been full of "pep," enthusiasm and rivalry.

The local club will continue to hold its monthly luncheons at the Commercial Club, Seattle, on the third Friday of the month.

—Joseph Daniels, '05, Secretary.

ANNUAL MEETING OF COUNCIL

Annual Reports of Committees read—Association in fine condition and free from debt

The annual meeting of the Alumni Council was held at the Engineers Club January 31. The salad orator was C. F. Lawton, '77, representative from New Bedford. Mr. Lawton, who was called upon to respond for New Bedford, told some very interesting stories of the stalwart seaman of the last generation, a type of sailor that has almost disappeared from the seas.

During the coffee course Henry A. Morss, '93, told about an enthusiastic meeting of the Cleveland association January 15, which he attended.

The annual reports of the various committees were then presented. The first one was the report of the Committee on Administration of Dormitories, which is as follows:

Your committee respectfully begs leave to submit the following report.

Appointment of Committee—In compliance with the resolution passed at the October meeting of the Council; to wit,

"That a committee of 3 or 5 be appointed by the President to study questions relating to the administration of the proposed dormitories and report to the Council, not later than the December meeting, recommendations covering the principal questions involved";

President Horn appointed the following committee:

A. F. Bemis, '93, chairman.
Lawrence Allen, '07.
M. B. Dalton, '15.

The committee found it impracticable to complete its work to make a report at the December meeting of the Council.

Plan of the Committee—It was decided to classify the work of the committee as follows:

1. To make a study of and report on the best system of government or administration for the proposed dormitories, as regards the personal conduct and the comfort of the occupants;
2. To make a study of and report on the problems involved in the occupancy by fraternities of dormitory sections.

I. ADMINISTRATION

Work done—In carrying out the first portion of their work, the committee

a. Has taken a poll of the graduate students in attendance at the Institute for the purpose of ascertaining the system in use at their respective colleges and universities for the control of the students in the dormitories (see Appendix A);
b. Has ascertained the sentiments of the present undergraduates in the form of a recommendation from the Institute Committee (see Appendix B);
c. Has questioned a representative list of colleges and universities to determine more definitely their systems of dormitory government, as well as the tendencies of their policies in this matter (see Appendix C).

Deductions—

a. It is clear from the replies received from the graduate students at the Institute (see Appendix A):

1. That in a large majority of the institutions represented, the Faculty has control of the dormitories, either directly through proctors of their own creation, or indirectly through regularly constituted committes of the students which have nominal control but are responsible to some college officer;
2. That in very few cases the classes are segregated in the dormitories.

b. As expressed in the recommendations of the Institute Committee, the present undergraduate student body at the Institute expects and desires to have control of the government of the dormitories with the minimum of Faculty supervision (see Appendix B).

c. Among the colleges and universities included in the questonnaire there is a tendency to give the students greater authority over matters pertaining to the personal conduct and comfort of the occupants of the dormitories (see Appendix C).

Recommendations—The general administration of the dormitories must be effected directly by the regular Institute authorities governing such matters as the care of buildings and grounds, the allotment of rooms, collection of rentals, and the general features of orderliness, comfort, and propriety. The details of these latter matters, however, matters particularly concerning the personal conduct and the personal comfort of the dormitory students, should be left as much as possible for such students themselves to administer through officials of their own choosing. This conclusion seems clear from the data submitted herewith. It is in accordance with the tendency of other institutions in such matters as this. The suggestion conforms to the policy of the Institute of treating the students as responsible men rather than as irresponsible boys; and it

agrees with the desires of the present undergraduates and the custom of the Institute in other departments.

It should not be assumed (as might be from the suggestion of the Institute Committee, Appendix B) that there would not always of necessity be a considerable measure of supervision by the Institute authorities themselves. The amount of this supervision would vary with the effectiveness of the student officers' work. It might, however, in these days of growing militaristic sentiment, go to the extent of a periodic inspection of quarters. Such inspection would not necessarily have to be made by the Institute authorities. It might, as at the summer camp, be done by the student officers themselves. But the responsibility for right living and right conduct on the part of the dormitory students rests on the Institute authorities, and can not, of course, be avoided through student government, or in any other way.

In connection with the administration or government of the dormitories, we recommend

(1) The distribution of the rooms in each section among all four classes.

(2) The appointment by the Institute authorities of the dean, bursar, or other general officer, or member of the Faculty to exercise general supervision over dormitory life.

(3) The direct control over dormitory affairs by a dormitory association or committee of dormitory students.

a. Committee to be composed of two men from each section preferably one sophomore and one junior, to be elected by the occupants of that section the first week of the second term and to hold office for one year; one additional member to be elected or appointed by the Institute Committee; or instead the inclusion of the president of the Institute Committee, *ex officio*, but without the privilege of acting as chairman.

b. The association should be responsible directly to the general officer of the Institute in charge of dormitory life, and report to him.

II. FRATERNITY OCCUPANCY

As recommended by former alumni committees, the Institute authorities have arranged for two sections suitable for fraternities in the dormitories now in course of construction. It was the duty of this committee to study the details of fraternity occupancy, and make such recommendations as may be of assistance to the President and Corporation in the present juncture.

In November the committee recommended that the Corporation present as soon as possible the definite conditions under which the fraternities might lease these sections, in order that those which desired could become applicants. Pursuant to a request from President Maclaurin, representatives of the fraternities which are interested met in his office on Tuesday, January 25, and were given essentially the following statement:

(1) Description of fraternity sections now being built; accomodations for at least 18 men with dining room, kitchen and the necessary servants' quarters.
At present there are to be two sections available, but though for obvious reasons no promises can be made, it is hoped that there will be several more in the course of a very few years.

(2) Purchases of furniture may be made through the Institute; light will be furnished by the Institute, as well as janitor service at a reasonable rate to be fixed later; heat is to be included in the rental, commissary supplies may be purchased through the Institute.

(3) Control exercised by the Institute will be of the same nature as that of any landlord, only.

(4) Rent. Since
a–the cost of each section is estimated at $33,000
b–the fact that the Institute is tax free
c–the fact that the Institute is satisfied with a comparatively low rate of return
d–the fact that Esplanade section is slightly more desirable than the Ames street section
the rent of the Esplanade section has been fixed at $2200 per annum, and that of the Ames street section at $2100. Rent to include heat, as stated above.

(5) Allotment. Fraternities must present their applications on or before March 1, and as soon as practicable thereafter the Institute authorities will decide on the allotment.

Recommendations—As a result of the meeting above referred to and numerous conferences with graduate and undergraduate fraternity men, your committee believes the best interests of the Institute and of the fraternities in the allotment of the two sections now available will be conserved by the adoption of the following plan and conditions:

(1) Rental—We recommend that under the terms of the lease to the successful applicants, payment of rental yearly in advance be required on or before June 1. Interest at the rate of 4 per cent per annum should be allowed the fraternity on such advanced payment. Should any fraternity applying for a section be unable to meet this prospective requirement, such a fraternity should include with their application a clear statement of such substitute guarantee of payment of rent as they propose to give.

(2) Applications—We recommend that each application be made in a formal manner by the proper officers of the organization of graduates representing the fraternity in question if such a body exists, or in its absence by three responsible graduates acceptable to the authorities.

(3) Allotment—We recommend that from the applications made under the above conditions, the Institute authorities first select those which may be deemed to have qualified, and from these select by lot the two successful applicants and no other announcement made to the public than their names.

III. CONCLUSION

In conclusion, should you approve and accept the recommendations contained in this report, we further recommend that a copy of it be sent to the

President of the Institute in the form of a suggestion from the Council.

Respectfully submitted,
(signed) LAWRENCE ALLEN.
(signed) M. B. DALTON.
(signed) A. F. BEMIS, *chairman*.

(See appendices on pages 179, 180 and 181).

The annual report of Mr. Humphreys, secretary of the Alumni Association, showed that the membership in the association December 31 was 7,110, of whom 5,621 were members by graduation and 1,489 by election. There are 348 life members. There have been eight regular meetings of the Council with an average attendance of fifty-two. The report included a review of the work of the Council during the year, and concluded with the statement that the association is now clear of debt for the first time in seven years. Previous to then the activities of the association were very small, but during the latter period the work has been extended very largely; although the expense has been greater each year, the interest has increased in greater proportion. The expenses for the year 1915 were $12,158.71. These figures include a deficit of $652.95 carried from the previous year. The income amounted to $12,342.95 which leaves a surplus of $184.24. The Auditing Committee reported the accounts of the association correct and in a satisfactory condition.

The field manager reported that at forty-two meetings of local alumni the Council had been represented by Boston men. The total number of addresses made by these men was eighty-two. The following new clubs were formed during the year: The Technology Clubs of China, Springfield, Fall River, Chile and Louisville.

George B. Glidden, '93, reported for the Committee on Assemblies, which included the Pop Concert at Symphony Hall June 8, last year, and the annual banquet of the Alumni Association January 8, this year. These successful functions showed a slight surplus over expenses.

The report of the Committee on Publication of the TECHNOLOGY REVIEW was made by W. B. Snow, '82, who spoke especially of the great influence the class news in the REVIEW was having in increased interest of Tech men everywhere; also of the large amount of local association news that the secretaries are sending in.

Miles S. Richmond, '99, presented the report on membership and dues, showing a generally satisfactory condition as far as collections are concerned. The committee made suggestions of methods for the collection of dues during the coming year, which it is hoped will result in a much smaller number of non-paying members.

The report of the Committee on Permanent Funds was presented by Mr. Humphreys, which showed that eighteen students have received loans during the past year amounting to $1250. One-tenth of the gross income of the Rogers Fund has been applied to the capital account of the fund. A new form of note has been adopted which bears interest from the beginning. Previously awards have been made to students on the basis of the note bearing interest at 6 per cent. after three years; now 2 per cent. is charged from the date of the note, for three years, and 6 per cent. after that time.

Everett Morss, '85, reported for the Alumni Fund Committee, that the subscriptions to December 31, amounted to $500,680 and the number of subscribers 2,619; $348,830.43 had been paid in, on account, of the subscriptions up to the first of the year. Interest on subscriptions received amounted to $17,336.41, making the total assets of the fund $366,-166.84. This money is in the hands of the treasurer of the Institute as the Alumni Fund account and no appropriation has yet been made by the Corporation.

Prof. H. W. Tyler, '84, who made a report for the Walker Memorial Committee, gave a brief review of the activities of the committee during the year which finally resulted in a suggested plan which appears to be generally satisfactory. The total assets of the Walker Memorial Fund now amount to $159,783.82.

Dr. R. H. Richards, '68, was then called upon, and he told of the many

visits that he has made to Technology associations and to small groups of Technology men all over the country.

I. W. Litchfield, '85, secretary of the Reunion Committee, made a brief report of the new arrangements that have been made and especially of the publicity program.

President Horn stated that he had talked with President Maclaurin in regard to the coöperation of educational institutions with the Commonwealth. The pamphlet which embodied the report of the Committee on Coöperation, had been spread broadly among educational institutions, and much had been done to show these institutions the kind of service they could perform. Mr. Horn said that the matter is coming along satisfactorily. He expressed the deep regret of Charles A. Stone, '88, the new president of the Alumni Association who had expected to be present at this meeting, but who was unable, at the last minute, to come to Boston from New York.

During the meeting a vote was taken for three members of the Nominating Committee to serve for three years, and the following were elected: Henry J. Horn, '88, Harold E. Kebbon, '12, Charles W. Eaton, '85.

Dinner at Pittsfield

Graduates of the Massachusetts Institute of Technology of this city and surrounding places met at the Park Club last night and had dinner at 7 o'clock. Those present were J. McArthur Vance, Charles W. Power, George C. Harding, George L. Mower, Peter F. McLaughlin, Edward A. Jones, William R. Thomas, Arthur E. Childs, Arthur E. Truesdell, George A. Curtis, William L. Root, Earl E. Ferry, Walter M. Stearns, H. M. Seaver, Edward C. Groesbeck and Paul Frederick, also W. N. Eichorn of North Adams and Ward C. Lovell of North Pownal, Vt.

After dinner the alumni present were treated to a fine exhibit of stereopticon slides of the new Tech buildings. There were about 75 slides and they showed the progress of the work from the bare ground in June, 1913, up to December last, when several of the buildings had an exterior appearance of being about finished. These buildings are a group construction so laid out that they may be added to in the future without destroying the symmetry of the whole plan. They are located on the Cambridge side of the Charles river, just north of the Harvard Bridge on Massachusetts avenue. The group faces the river and from the Boston side it presents an imposing sight.

Final arrangements were perfected by the Tech men for the concert and ball to be given in the Masonic Temple in this city February 3. This concert is to be given by the musical clubs of the Massachusetts Institute of Technology while on their annual mid-winter tour of the East. The other concerts to be given near here are at Schenectady, and Springfield. The musical engineers have planned to keep things moving from the start and in place of the usual intermission will put on a stunt of their own which they promise will add considerably to the enjoyment of the evening.

The M. I. T. alumni have a strong organization in this county and are planning several more meetings this winter. All former Tech men are invited to get in touch with the local club and it is hoped to increase the membership greatly in the next two months. —*Pittsfield (Mass.) Journal*, January 21.

Tech Man's Narrow Escape

The whole country was startled in January by the news that a number of Americans, some of them mining engineers, had been murdered by Mexican bandits near Santa Ysabel. The one man who escaped from this butchery was Thomas B. Holmes, '06, who reached the border in a state of collapse and told the story of the murders. His escape from death was almost miraculous.

Reminiscence Number

Send in your reminiscences of life at Tech to your class secretary at once. He wants it for class news in April REVIEW.

APPENDIX A

Condensed Summary of Replies from Graduate Students

	Number of instances reported	Stated preference for Tech
FACULTY SUPERVISION *Direct*, under members of the faculty living in the dormitories or, as graduate student proctors....	23	23
Indirect, through student proctors, or committees which report to the faculty.....	21	36
More supervision for the freshmen than for others.	2	12
STUDENT CONTROL No regularly constituted student government....	1	6
Committees practically independent of faculty restrictions.....	13	44
Classes segregated.....	2	10
No dormitories being used.	11	
No preference stated.....		29
Total number of colleges and universities reported	70	
Total number of individual replies received.....	.....	144

APPENDIX B

Form of government proposed by the Institute Committee

December 21, 1915.

The Institute Committee of the Massachusetts Institute of Technology:

GENTLEMEN:

The following proposed plan of government of the Institute Dormitories is submitted by the Executive Committee.

(1) The government of the dormitories shall be entirely in the hands of the M. I. T. Undergraduate Association.

(2) The dual system of occupancy shall be instituted; *i.e.*, one wing comprising several units shall be occupied by juniors and freshmen, the other wing by seniors and sophomores.

(3) The inmates of each unit shall elect an upperclassman to act as chairman of that unit and such other officer or officers as may be advisable, the election of such officers to be ratified by the Institute Committee.

(4) The chairman of each unit shall see that the rules and regulations of the Dormitories Committee are observed.

(5) The chairmen of the several units shall constitute the Dormitories Committee.

(6) The Dormitories Committee shall elect one of its members, preferably a senior, to be its representative on the Institute Committee.

(7) The Dormitories Committee shall formulate such rules and regulations concerning the government of the dormitories as may be deemed advisable and shall see to the execution of such regulations.

(8) The rules and regulations of the Dormitories Committee shall be submitted to the Institute Committee for approval.

(9) Appeals from the decisions of the Dormitories Committee may be made to the Institute Committee.

(10) The Alumni Council Committee on Dormitories shall act in an advisory capacity to the Dormitories Committee.

Respectfully submitted.

(Signed) W. J. FARTHING,
Chairman.

APPENDIX C

Condensed Summary of Replies to Letters sent to Registrars

NAME OF COLLEGE OR UNIVERSITY	FACULTY SUPERVISION		STUDENT CONTROL			TENDENCY OF POLICY	REMARKS
	General Officer in Charge	Proctors	General Supervision of Dorms.	In charge of individual Dormitories	Report to		
Brown	Dean	Abandoned				More student control	

APPENDIX C

Condensed Summary of Replies to Letters sent to Registrars (continued)

Name of College or University	Faculty Supervision		Student Control			Tendency of Policy	Remarks
	General Officer in Charge	Proctors	General Supervision of Dorms.	In charge of individual Dormitories	Report to		
Columbia	Hall Council 4 faculty, 3 students has judicial powers; dean disciplines on recommendations; president of university has reserve powers		(3 students on Hall Council)	Hall Committees; ten residents of the hall and Supt. of Blds and Grnds, *ex officio;* has legislative powers		More student control	
Denison		Resident faculty					
Harvard	Regent	In each hall; also faculty live in freshman halls		House Committees relied on to co-operate with regent		More student control	
University of Pennsylvania	Parietal Committee of six	5 of Parietal Committee live in dormitories	Board of Dormitory Representatives; one from each hall		Parietal Committee		
Princeton	Faculty, ultimately	One proctor and assistant; also janitors	No regularly constituted student control			Probably more student control	
Reed			General Student Council				
Wesleyan	Faculty members of Committee of Conference		The Senate, being the student members of the Committee of Conference	Committee of Order, appointed by the Senate	Committee of Conference		
Whitman	Member of faculty			House Committee	Member of faculty		Only one dorm., now all freshmen; formerly older students, had their own control

APPENDIX C

Condensed Summary of Replies to Letters sent to Registrars (concluded)

Name of College or University	Faculty Supervision		Student Control			Tendency of Policy	Remarks
	General Officer in Charge	Proctors	General Supervision of Dorms.	In charge of Individual Dormitories	Report to		
Williams	Treasurer, rentals and repairs		No regularly constituted student control				
Yale	Dean or director	Appointed by dean or director					Classes are segregated; more supervision for freshmen than others

NOTICE!

1. We need your help to make the exhibit

"50 YEARS OF TECHNOLOGY"

a success. Fill out the questionnaire you received with the "Pantechnicon," read the outline in this number and suggest spectacular ways of showing these facts.

2. If you haven't contributed to the song contest do it now.

3. You will soon be asked if you expect to come to the Reunion. Please answer at once, as the Committee depends on this information in order to gauge its preparations.

ANNUAL ALUMNI BANQUET

Speeches by President Maclaurin, Governor McCall, Samuel Insull and Charles A. Stone

The annual banquet of the Alumni Association was held at the Copley Plaza Saturday, January 8, about five hundred members being present. The dinner, which was held in the large ball room, was full of life and interest.

Seated at the head table were Henry J. Horn, '88, president of the M. I. T. Alumni Association; and on his right were Governor McCall, James W. Rollins, '78, president of the Technology Clubs Associated; Matthew C. Brush, '01, vice-president Boston Elevated Railroad; Frederick P. Fish, member of the Technology Corporation; Howard Elliott, president New York, New Haven & Hartford Railroad; Capt. Richard Lawrence, member of the Governor's staff; and Lester D. Gardner, '98, representative of the New York Technology Club.

To the left of Mr. Horn were Pres. Richard C. Maclaurin of Technology; Charles A. Stone, '88, incoming president of the Alumni Association; Joseph H. Knight, '96, vice-president of the association; Cecil H. Peabody, '77, chairman of the Technology Faculty; Everett Morss, '85, member of the Executive Committee of the Corporation; Alfred E. Burton, dean and honorary member; George B. Glidden, '93, chairman of the Banquet Committee, and Walter Humphreys, '97, secretary of the Alumni Association.

The seating of the alumni was at round tables by classes, the women guests and alumnæ occupying tables in the bays of the gallery.

The special guests of the evening were Governor McCall of Massachusetts and Mr. Samuel Insull, president of the Commonwealth Edison Company of Chicago.

Governor McCall came a little late, and he had hardly taken his seat when the folding doors into the smaller ball room opened and a company of the Tech battalion marched in, calling the audience to its feet and bringing forth a spontaneous cheer. The cadets came to attention in front of the speaker's table and were presented to him as commander-in-chief of the state troops. At this point the colors, escorted by the color guard, marched down the aisle to the guests' table where they were given the salute by the bugler. The audience then sang the "Star Spangled Banner" and the company returned to its rendezvous. The evolution was very striking, not only because of the creditable way in which the students went through the evolutions, but because of the idea that was conveyed.

Pres. Henry J. Horn, '88, of the Alumni Association, acted as toastmaster, and introduced as the first speaker, Governor McCall.

When Governor McCall arose to speak he was given a hearty reception, and, under the leadership of Lester P. Gardner, '98, he was given a Technology cheer. Governor McCall thanked them for their enthusiastic reception.

"I was surprised," said the Governor, "when I found myself in command of that company from the Tech regiment for not having had any previous military training I was somewhat at a loss as to the etiquette I should observe. I am glad to see that Technology is doing her share in training the students of this school in military science in case we should ever be called upon to defend ourselves against attack.

"I am glad to see Technology coming more and more into closer relation with the state, and it is a credit to Massachusetts that at the beginning of the school the state recognized its obligations to the Institute and rendered it financial aid. That agreement with the state whereby the school receives aid from the

state will probably not be renewed on its expiration, but with the great and prosperous alumni which the school has, there need be no fear, I hope, that the school cannot keep on the same plane on account of the loss of this financial aid from the state.

"In Lloyd George's recent speech in England it was clearly shown that England was really ignorant of the resources of that country. The best preparation for war is the mobilization of the industries of the country. If the scientific men of the country would make a special study of the mobilization of the industries it would be the best possible step toward preparedness. Preparedness for peace is the best preparedness for war, if done in the right way. It is in this way the alumni of Technology can be of great benefit."

In closing, the Governor referred to the University of Michigan, saying that this school, like Technology, was an endowed school, and for this reason the alumni had not supported it to the extent they should, but he felt that when the Institute moved to its new home and had its new equipment installed, the alumni would see that it kept progressing and be able to give to the Commonwealth instead of receiving aid. "If ever I am called upon, I can assure you," he said, "that I shall give my heartiest support to anything which will aid the school."

President Maclaurin, who was next introduced, spoke as follows:

I hope that you were all duly impressed with the appearance of the freshmen in the military display that occupied your attention earlier in the evening. This display is not to be ascribed to any recent talk about "preparedness." It represents something that is as old as Technology itself, something that has been active within the Institute for the fifty years of its existence, although never so active as today when it is being carried on under the inspiring direction of Major Cole. The sample company that you saw is one of the eight companies of our regiment—a regiment which, except for its officers, is composed entirely of freshmen. I have no doubt that His Excellency, the chief military officer of the state, recognizes the potential value of such a body of men—men who are ready for leadership in any field, civil or military, ready for it by natural aptitude and by training.

The military training at Technology is all due to an Act of Congress, the Morrill Act of 1862, an Act which required the inclusion of what was called "military tactics" in the curricula of the schools supported in whole or in part by the endowment furnished by that Act. The Morrill Act constituted the greatest educational endowment ever made by a single act of any legislature. It assisted greatly in the development of Technology and gave rise to the establishment not only of the Agricultural College at Amherst but of similar schools of agriculture and mechanic arts in almost every state in the Union. There has been much speculation as to why Congress insisted on the inclusion of military tactics in the curricula of the schools for which it then provided. It was due, of course, in part to the tragic experiences of the times, to the terrible object lesson that the country had then before it of the consequences of going to war without adequate preparation. It may also have been due in part to a somewhat dim appreciation of a fact of great importance that has now been made clear, that there is much to be gained by the association of military training with the study of applied science. We see now as we have never had an opportunity of seeing before how much the success of an army depends on the application of scientific principles to every phase of its activity. Science insists on knowing the truth, on resting everything on the solid ground of fact. It trains men to look ahead, to make adequate preparation for every contingency, to conduct a campaign as it conducts a scientific experiment, in an orderly, logical fashion. There is, however, another aspect to the matter that is of much greater importance for a nation like ours whose spirit is preëminently a spirit of peace and that abhors militarism and strives to keep out of war. Happily, science concerns itself

with other things than war, and its greatest victories have been won and will always be won in the beneficent paths of peace. Technology does not exist to train men to fight, but to train them to apply scientific methods to the practical arts of peaceful life. The inclusion of a modicum of military training in the curriculum of such a school recalls the important truth that some of the fundamental principles of military training are essential to the success of *civil* enterprises under the conditions of modern life. If we are to cope successfully with the great problems of modern industry we must mobilize our forces scientifically as do the effective armies and we must secure real team play between all the elements that are struggling together on the same side. It may take this country a long time to learn this lesson, but it must learn it ultimately or go down in the economic struggle. Science must rule in peace as well as in war and this being true the country as a whole will do well to watch carefully its schools of applied science, to insist that they are adequately equipped for this great task and see that they are doing for this country at least as much as has been done both in peace and war by schools of corresponding type in Germany.

It seems to me that the one great fact that must present itself to every thoughtful alumnus of Technology is the extraordinary opportunity that is now presented to the Institute of which he was a former student. There never was a time when the country needed scientifically trained men so urgently as it needs them now. It needs them primarily to help in the great task of organizing industry on a scientific basis. If it is established on any other basis it can not stand. To this country is now presented an unrivalled opportunity for developing industry not only within our own borders but in the world at large. For generations, great and profitable enterprises have been carried on in South America, China and various other parts of the world by means of European capital and under the guidance of men of European training. Now most of these enterprises must either languish and die or have new life breathed into them by American enterprise and capital. This presents an opportunity full of fascination for the far-seeing man, and one that promises great financial profit to the country that undertakes it. These enterprises cannot be carried out successfully unless by the aid of men trained to apply science to practical problems. Tech men have long taken some share in the development of the industries of the world. They now have a chance of playing a *leading* rôle. Such an opportunity should stir the enthusiasm of every Tech man and urge him to see to it that his alma mater rises to the level of this great opportunity.

The sun of good fortune seems constantly to shine upon us in these latter days as is evidenced amongst other things by the fact that after much talking about moving to a new site we actually took the step and began to equip ourselves for greater effort just at the right psychological moment. Alone we should have been able to do great things, but our power for usefulness at this juncture in the world's history must have been greatly increased by an alliance with Harvard University, made as it has been made just at the right time. Great things will depend in the future on the steps that we take now, and I should like, if time permitted, to indicate some of the steps that we should take, but there are other speakers to follow and I must not presume too long upon your patience. I have been asked to say something as to the position in which we now find ourselves regarding our building program. There has been much talk of building during the last few years, but I hope that all recognize in large buildings and better equipment only means to a great educational end. It will be a relief when the center of interest changes, and we can turn to strictly educational efforts. When we started out a few years ago, our building program included the purchase of a site, the erection of educational buildings and their adequate equipment with machinery and the like, the building of a power house with all its appurtenances, some provision for dormitories, a restaurant, a gymnasium

and a social center, the last two having been spoken of for many years as the Walker Memorial. The program was an ambitious one, involving for its successful completion the expenditure of many millions, far more than almost anybody who has not looked into the matter carefully can appreciate. In the last few years we have been extremely fortunate in the financial support that we have obtained, so much so that many of our friends, including many of our alumni, have formed the very erroneous opinion that we don't need any more help. Now, I want you to clearly understand that this is not true, but that it is true that of the many millions needed to complete the program as outlined we have secured so much that only half a million is now needed to finish the whole plan. The critics, of whom there are always a sufficient supply in this community, have told me occasionally that having received so much we ought not to need any more if we had been really economical. Now, nothing is easier or cheaper than criticism of this type; any one can get up and say that a thing that may have cost ten millions could have been carried through for nine, but unless he has had an opportunity of examining matters carefully with all the facts before him, and none of our adverse critics have had such an opportunity, his criticism is not worth a presidential tut-tut. Happily for us, amongst the few who have watched the proceedings with care are the greatest benefactors of Technology and they have expressed themselves as thoroughly satisfied. As a practical evidence of their approbation, these men have made large additions to their original contributions. No one who knows the facts can charge us with extravagance and the only reason why we have not done *all* that we want to do with the money in hand is that what we want to do, and will do, is a much larger thing than most people realize. We need some more money to adequately equip the buildings and we shall insist on their adequate equipment at all costs as we should rather put up with discomfort and incompleteness in other directions than inadequate equipment for the great educational opportunity that lies before us. We need some more money for equipment and we need considerably more money for the Walker Memorial which as now designed combines a gymnasium, a restaurant, and a social center for the students and Faculty. I know that there has been some criticism because the Walker Memorial has not yet been begun. I need not assure you that I am as anxious as any one else to see it not only begun but finished, and am ready to make as liberal an appropriation as possible from any funds that may be available for such a purpose, provided always that this does not leave us short on the matter of equipment.

Now we are looking forward with eagerness to the great Reunion in June and it will be most disappointing to me and to you if the Walker Memorial is not well under way before that, and it will be under way if you take the financial problem in hand and deal with it vigorously as Tech alumni are always expected to do. Remember that the support that comes to Tech from without, and in view of the greatness of its task it must always look for a large measure of support from without, remember I say that the support from without depends very largely indeed on what is accomplished from within. I speak whereof I know when I say that practically all Technology's benefactors, are watching closely what the alumni are doing and are making searching inquiries as to the number of men who are subscribing as well as the total amount that is promised. You know, of course, of the Alumni Fund Committee and its activities. Probably all here have contributed largely to that fund, but there are a great many alumni who have not contributed at all and there are probably many who in their enthusiasm and generosity are ready to contribute more. The Fund Committee has never considered that its campaign has been completed, and I have therefore asked it to complete the campaign. If you wish, you can ear-mark every dollar that you contribute to the Walker Memorial, but in any case you may rest assured that the very utmost that can be appropriated of

the funds that come to the Institute within the next few months will go to the completion of that building. I have always felt that it would be a great mistake to begin the building on any inadequate plan or carry it through in any way other than the best. We must have a memorial really worthy of the great president whom we wish to honor, and I confidently rely on Tech men everywhere to see that we *have* such a memorial and have it soon.

Mr. Samuel Insull, president of the Commonwealth Edison Company of Chicago, who followed Dr. Maclaurin, took for his subject "Universal Electricity Supply," in which he expressed his well-known views upon the economic value of a central station and presented new and striking figures on the savings which are made possible through centralized production and distribution. In ten years he said that the central station plant rating rose from 3,000,000 hp. to 11,000,000 hp. The figures today are probably 25 per cent. in excess of this. Improvements in steam turbines result in raising the energy secured from coal from 8 to 10 per cent. to 17 per cent. with the possibility of a further increase through other means, such as gas turbines and the production of electrical energy direct from some mineral.

Referring to the electrification of the steam railroads in Chicago the speaker said this was a pressing question.

The politicians assume that it is only necessary to ask the railroads to accomplish this and it will be done, but 3,500 miles of track are involved, and the solution of the problem requires years of experience, since a comprehensive and not a piecemeal solution is desirable. The speaker said that he did not assert that the electrification of railroads is an economic proposition today, that being a question which must be determined by the railroads themselves. "My business," said Mr. Insull, "is manufacturing energy and not manufacturing transportation. I do not want to be quoted as arguing in favor of immediate electrification at any point in this country, but I do wish to emphasize the economic value of diversity of industries as users of electric service."

The speaker said that if the railroads in the Chicago district should be electrified they would add 125,000 kw. to the present load, and that one system would be obliged to carry 728,000 kw. if no account was taken of the diversity factor. Owing to overlapping peaks, however, the service could be rendered by 57,000 kw., making a saving of 150,000 kw. through centralization. This represents a capital saving of $30,000,000, and the saving in fuel consumption would be 5,900,000 tons yearly on a total assumption of 11,000,000 tons.

"Now suppose," said Mr. Insull, "that we carry this idea farther afield, considering the electrification of all the railroads in the country. It takes about 2,800,000 tons of coal yearly to operate the railroads in the Chicago district by steam locomotives. Applying the same figures to the entire country and correcting by figures of the Interstate Commerce Commission, we find that 135,000,000 tons of coal are yearly required for steam railroads in this country. If the same process is followed with the diversity factor as in Chicago, we find that if we could marshal all the energy requirements of central stations, railways, manufactories, mines, street cars, etc., the 43,000,000 hp. now required for separate operation would be reduced to 30,000,000 hp. if operated under one system of production and distribution. I am not suggesting a single system for the United States—that, of course, is impossible—but I do suggest a series of state-wide organizations where the density of use is sufficient for all the energy requirements of one territory to be met by one system per territory. One might embrace Boston and New York, another New York and Philadelphia, a third Philadelphia and Pittsburgh. The savings of such group systems would be almost fabulous, amounting to from 12,000,000 hp. to 15,000,000 hp. at, say, $200 per hp. The annual saving in fuel consumption would be about 250,000,000 tons, or $500,000,000.

The last speaker on the program was Charles A. Stone, '88, the newly elected president of the Alumni Association. Mr. Stone predicted that the coming

year would be one of the most eventful in the history of the Institute. The moving into the new buildings and the celebration of the fiftieth anniversary of the Institute will call an immense concourse of Tech men to Boston from all over the world. Mr. Stone briefly outlined the Reunion program. In continuing he said:

"We shall not find a completed Technology in June, and I hope there will never be such a thing as a completed M. I. T. To be ahead of the times —or even abreast of the times—an educational institution must continually grow, and I hope our Tech will grow for 1,000 years; not necessarily in the size of its student body, but in efficiency, facilities and prestige. To grow and enlarge and improve requires money, and even before we move into our new quarters we shall have expended all our available resources, including the munificent gift of the mysterious Mr. Smith.

"I have faith that out of the thousands of alumni who visit the plant in June there will be many who will see the need, and some who will be able to assist in a large way.

"But more than munificent gifts from the rich we need gifts from the great body of our alumni. Without coöperation, team play and enthusiasm money can accomplish nothing. As an evidence of the real team play of the M. I. T. I want to know that every member of our alumni body has contributed something to this great work, and feels that it is partly his own creation. The man who makes a sacrifice to give $10 contributes more than he who gives a million out of his abundance.

"Technology has before it now the greatest opportunity of any educational institution in America. It will have the most up-to-date plant in the country. It has prestige and reputation second to none. It has a well organized and congenial faculty. It has an affiliation with the oldest and best known university in America, which I believe will take nothing from the application and concentration of purpose for which the M. I. T. men are famous.

"America today has the greatest opportunity open to her of any nation of the world. She has a highly intelligent population; she has money; she is at peace. The universities in the warring nations are paralyzed. We know what the great universities in Germany and France have done to make those nations efficient in science and art, and war as well. Many of these universities have stood high in the esteem of all nations; but the way is now open to the United States, through the new M. I. T., to surpass the world, and I am sure that the alumni, the Faculty and the Corporation will see to it that this result is attained."

During the progress of the dinner a telegram was received from Y. Bonillas, '84, minister of commerce and public works of Mexico, regretting his inability to be at the banquet.

Miss Hollingsworth's Bequest

By the will of Miss Rose Hollingsworth of Mt. Vernon street, Boston, the Institute of Technology is to receive a bequest of $10,000. The other public bequests include $5,000 to the Museum of Fine Arts, and the same amount to the Tuskegee Industrial School of Alabama, Radcliffe and Mt. Holyoke colleges. In addition to this there are a number of bequests to institutions, libraries, etc., in Massachusetts.

Five thousand dollars of the money bequeathed to the Institute is to found a scholarship fund in the name of George Hollingsworth.

Annual Meeting at Atlanta

The annual dinner of the Atlanta Association of the M. I. T. was held at the Hotel Ansley, Atlanta, Ga., on January 29.

The following members were present with their wives and friends, H. R. Bates, '94, W. R. Collier, '00, F. W. Hadley, '93, William Kelley, '98, W. J. Sayward, '01, G. C. Scales, '88, C. A. Smith, '99, L. M. Thacher, '86, and F. H. Rockett, '16.

F. W. Hadley was elected president, and W. J. Sayward, secretary.

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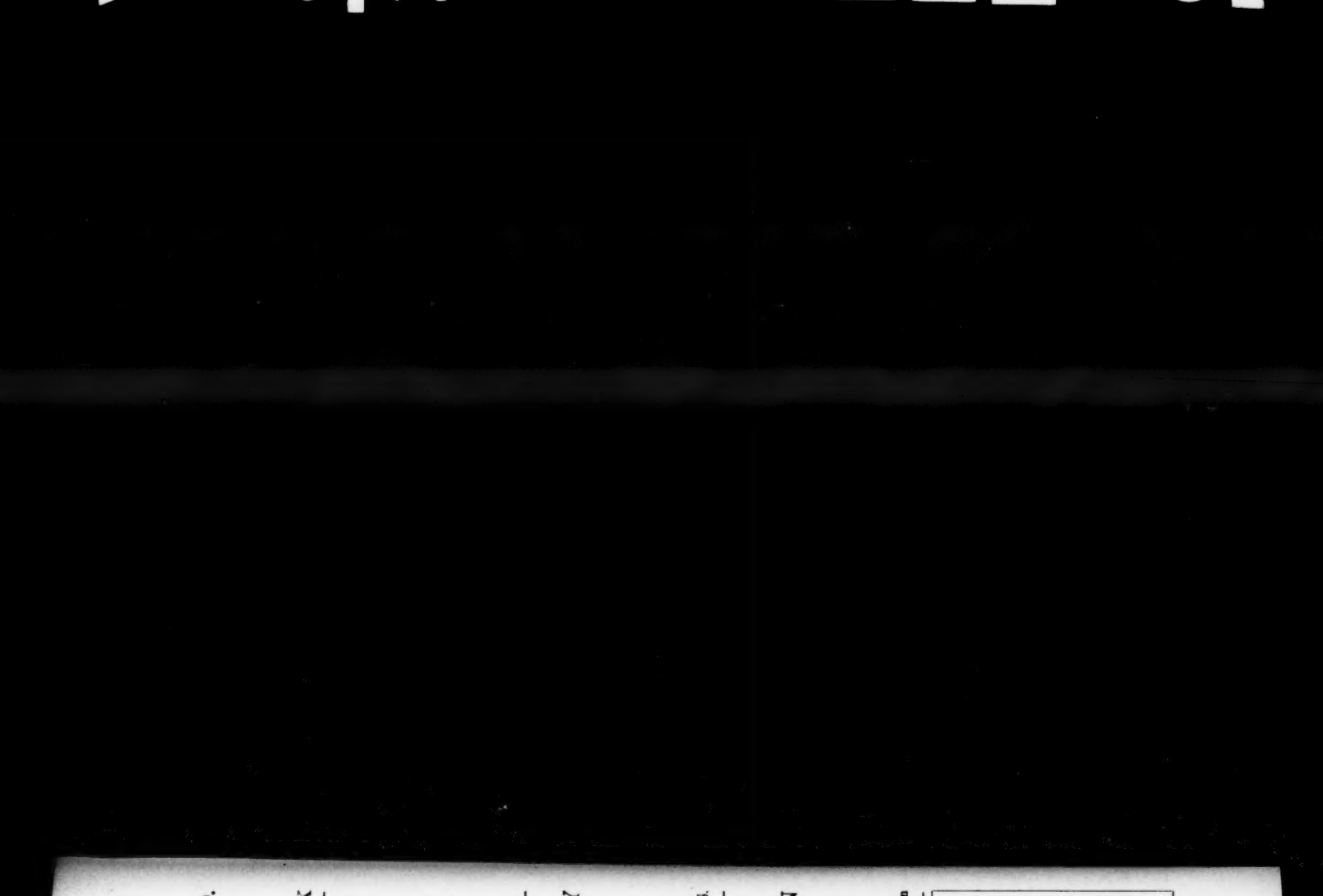
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